

# T H E       D E L T A       W E T L A N D S       P R O J E C T



September 29, 2006

Mr. Ralph Svetich  
Department of Water Resources  
DRMS Project Manager

Re: DRMS ITF Papers

Dear Mr. Svetich:

Delta Wetlands has a significant interest in the fate of the Delta, both as the proponent of an in-Delta water storage project and as its largest land owner. As such, we have reviewed the entire collection of ITF papers and offer the following comments:

## Risk Assessment

- The basic approach of this process seems to rely on conceptual models, statistical projection, and professional judgment to extend limited physical data to a detailed picture of the Delta. Care must be taken to avoid construction of over-simplified models that cannot be calibrated or defended to ensure credibility of results.
- The ITF papers contain considerable discussion of epistemic uncertainties and the need to rely on expert judgment where such uncertainties are great. A problem with the proposed methodology is that the most foundational modeling assumptions are of the most uncertain sort. For example, the propagation of seismic forces through Delta soils, and the reaction of Delta levees to the resulting ground movements are largely unknown, and hard if not impossible to test with existing experience and data. Because these epistemic uncertainties are so foundational to the whole DRMS Study, they deserve special attention. We recommend a more robust process of peer review, additional geo-tech field work, and involvement of people who have experience managing the physical Delta.

## Risk Management

- The ITF papers are limited to a risk assessment (Phase I). The real work is yet to come in development of a risk management strategy (Phase II) by spring of 2007. It is vital to this process that it be open and transparent with full peer review of the results.

- It is difficult to assess the completeness of the proposed methodology without the risk management element included, as some factors could be included in either section. It would be helpful to publish ITF papers for the risk management task as soon as possible.

#### Emergency Response and Repair

- The current threats to the Delta are fairly well understood and modeled. However, analysis of a more extensive scope of risks may require a set of solutions outside of the current emergency response spectrum. Facing a loss of Delta exports for an extended period of time, creative solutions will surely be developed (e.g., temporary barriers, pumps, tide gates). Involvement of Delta interests with firsthand knowledge, including landowners, operators, and engineers, will be paramount to assess the full range of response mechanisms.
- Emergency response actions may exceed the scope of the simplified models proposed for this study. Upon development of the risk management strategies (Phase II), consideration must be given to the adequacy of the suite of models developed during risk assessment (Phase I).

Thank you for the opportunity to participate in this process. We look forward to continued participation as this study looks at risk management opportunities (Phase II). If you have any questions or comments on the above, please feel free to give us a call.

Sincerely,

David A. Forkel  
Assistant General Manager  
The Delta Wetlands Project